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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,101

04/11/2005

Janne Aaltonen

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EXAMINER

PHUNG, LUAT

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

12/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/531,101

Applicant(s)

AALTONEN, JANNE

Examiner

Luat Phung

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11 Apr 2005, 26 Sep 2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is in response to a letter for patent filed on April 11, 2005 in which claims 11-18 are presented for examination and are pending.

Claims 11-18 are rejected.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the abstract is not on a separate sheet. Correction is required. See MPEP § 608.01(b).

Drawings

4. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 1, 3, 6, 7, 9 and 11 are objected to because of the following informalities:

Claim 1, line 10, recites "so that" which constitutes intended use making the functionality following not carry any patentable weight since it never actually has to take place. Claims should be amended to recite more direct and positive language such as "is", "are", "to", or "that". The same problem exists in claims 3, 6, 7, 9 and 11.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the remaining data packets" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the correct order" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the point" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-4, 7 and 8 are rejected as being dependent upon a rejected base claim, namely claim 1.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The limitation "computer program" recited in line 1 is not a process, machine, manufacturer, or composition of matter, or any new and useful improvement thereof because there is no physical structure/connection of computer software recited in the claim.

Claim 16 is rejected as being dependent upon a rejected base claim, namely claim 15.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-18 are rejected under U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (US Pub. 2006/0034313, of instant application) in view of Chuah, et al (US 6,515,994).

Regarding claim 1, AAPA discloses a multicast-enabled network element (Fig. 1, element 7) comprising:

- a first logical interface (Fig. 1, element 6) for receiving a file from a content provider (Fig. 1, element 2; para. 4, 7);

- a second logical interface (Fig. 1, element 9a, 9b) for forwarding the file to one or more hosts (Fig. 1, elements 3a, 3b, 3c) as a sequence of data packets (A-E per Fig. 1) in a file delivery transmission (para. 5, 7); and

- a processor for defining a group of one or more hosts, wherein a further host may be added to the group in response to the reception of a request from the further host, the group being limited to further hosts situated within a single locational area; (para. 6, 7)

AAPA does not explicitly disclose:

wherein the network element is configured to transmit the file to the group so that the further hosts joining the group during transmission of the data packet sequence receive the remaining data packets in the sequence.

Chuah from the same or similar fields of endeavor discloses:

wherein the network element is configured to transmit the file to the group so that the further hosts joining the group (subsequent joining of destinations per col.3 , lines 46-57) during transmission of the data packet sequence (transmission already in progress per col. 3, lines 46-57) receive the remaining data packets in the sequence. (until all blocks received per col. 3, lines 46-57)

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine AAPA's multicast method with Chuah's approach to adding to a multicast group by allowing hosts to be joined during transmission of a file, and ensuring all packets are received by these hosts. The motivation for doing so would have been to improve reliability and flexibility of file delivery to end users.

Regarding claim 2, AAPA discloses substantially all of the subject matter as recited above. AAPA further discloses further configured to transmit the file via a first communication network (para. 8). AAPA does not explicitly disclose receive requests from the further host via a second communication network. Chuah from the same or similar fields of endeavor discloses receive requests from the further host via a second communication network. (col. 3, lines 46-57) Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine AAPA's multicast method with Chuah's approach to allow additional file requests from further hosts. The motivation for doing so would have been to improve reliability and flexibility of file delivery to end users.

Regarding claim 3, AAPA further discloses wherein one or both of a request and the file is transmitted between the network element and the further host via a cellular

communications network and the locational area is defined in terms of a cell, so that the group is limited to hosts situated in a locational area covered by a single cell. (Fig. 1, element 5, 8; para. 4)

Regarding claim 4, AAPA further discloses further configured to forward the file to the further host over a wireless communication network, being the last network element situated before an air-interface in a file delivery path between the content provider and the host. (Fig. 1, elements 2, 5, 7, 3a, 3b, 3c; para. 4)

Regarding claim 5, examiner takes official notice that it is well known in the art at the time of the invention that header encryption is critical to secured transmission, in particular over the wireless networks, thus the network element further comprises a file request handler for encrypting information in headers of the data packets relating to the correct order of data packets in the file delivery transmission.

Regarding claim 6, examiner takes official notice that it is well known in the art at the time of the invention that logging is a basic capability of a communications system for diagnostic and performance management, thus the network element is further configured so that, where a host has submitted a request during the file delivery transmission, the point in the file delivery transmission at which the host joins the group is logged.

Regarding claim 7, AAPA discloses substantially all of the subject matter as recited above except further configured so that, where a host has joined the group during the file delivery transmission, the forwarding of the last packet in the data packet sequence is followed by a repeat transmission of the file. Chuah from the same or

similar fields of endeavor discloses retransmission of the file following the file delivery. (col. 5, line 52 to col. 6, line 17) Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine AAPA's multicast method with Chuah's approach to retransmit the file by repeating the file transmission. The motivation for doing so would have been to ensure full delivery of the file to users joining during a file transmission.

Regarding claim 8, AAPA discloses substantially all of the subject matter as recited above except configured to receive a negative acknowledgement message and to treat the message as a request for the file. Chuah from the same or similar fields of endeavor discloses receiving status signal in the form of request for blocks not received and retransmitting the file. (col. 5, line 52 to col. 6, line 17) Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine AAPA's multicast method with Chuah's approach to re-request transmission by sending the status signal retransmitting the file. The motivation for doing so would have been to ensure full delivery of the file to users joining during a file transmission.

Regarding claim 9, AAPA further discloses receiving at a network element a request for a file from a first host (para. 6). Furthermore, claim 9 is a method claim which is a substantial duplicate of apparatus claim 1, and thus is rejected under the same reason.

Claims 10-11 and 12-14 are method claims corresponding to apparatus claims 2-3 and 5-7, respectively, and thus are rejected under the same reason.

Claims 15 and 16 are software claims corresponding to apparatus claim 1, and thus is rejected under the same reason.

Claims 17-18 are substantial duplicates of claims 1-2, and are thus rejected under the same reason.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form 892).

12. Examiner's Note: Examiner has cited particular paragraphs, columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and, also to verify and ascertain the metes and bounds of the Claimed invention.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luat Phung whose telephone number is 571-270-3126.

Application/Control Number:
10/531,101
Art Unit: 2616

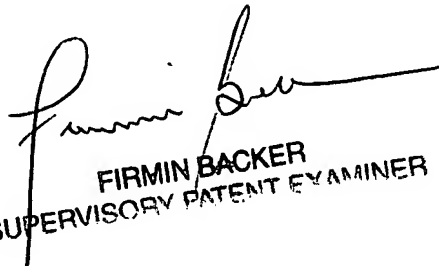
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The examiner can normally be reached on M-Th 7:30 AM - 5:00 PM, F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LP


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